





- b. exposing said uncured elastomer composition to a first pressure and a first applied temperature over a first exposure period sufficient to only partially cure the composition to a state of cure of from about 20% to about 99% as determined in accordance with ASTM D5289;
- 5 c. disposing said partially cured elastomer composition between said first metal surface and said second metal surface; and
- d. exposing said partially cured elastomer composition to at least one of a second pressure and a second applied temperature over a second exposure period sufficient to substantially fully cure said elastomer composition.
- 10 13. The process of claim 12 wherein said first pressure, said first applied temperature and said first exposure period are sufficient to cure the composition to a state of cure of from about 50% to about 95% as determined in accordance with ASTM D5289.
- 14. The method of claim 12 wherein said first pressure, said first applied  
15 temperature and said first exposure period are sufficient to cure the composition to a state of cure in the range of from about 70% to about 90% as determined in accordance with ASTM D5289.
- 15. The method of claim 12 further comprising the step of incorporating in said elastomer composition a first curative and a second curative, said first  
20 curative exhibiting a first activation temperature and said second curative exhibiting a second activation temperature; and wherein said first applied temperature and time is sufficient to activate said first curative, and said second applied temperature and time is sufficient to activate said second curative.
- 25 16. The method of claim 12 further comprising the step of exerting force onto said subassembly to achieve a compression of said elastomeric composition of up to about 50% prior to said second curing step.
- 17. A rubber-to-metal bonded article, comprising at least a first metal member, a second metal member and a cured rubber member disposed between and  
30 bonded to at least one of said first metal member and said second metal member, wherein:
  - a. said rubber member is the reaction product of at least one elastomer, at least one rubber-to-metal adhesive adjuvant and at least one curative; and

- b. said rubber member is formed and arranged to reside between said metal members in at least one of a neutral state and a state of compression at a temperature in the range of from about  $-20^{\circ}\text{C}$  to about  $120^{\circ}\text{C}$ .
18. The article of claim 17 wherein said bonding of said rubber member to at least one of said metal members is achieved in the substantial absence of an adhesive layer between said rubber member and said at least one metal member.
19. The article of claim 17 wherein said elastomer is one selected from:
- a. ethylene-alpha-olefin elastomer;
- b. ethylene/acrylic elastomer,
- c. polychloroprene rubber,
- d. acrylonitrile butadiene rubber,
- e. hydrogenated acrylonitrile butadiene rubber,
- f. styrene-butadiene rubber,
- g. alkylated chlorosulfonated polyethylene,
- h. epichlorohydrin,
- i. polybutadiene rubber,
- j. natural rubber,
- k. chlorinated polyethylene,
- l. brominated polymethylstyrene-butene copolymers,
- m. styrene-butadiene-styrene- block copolymer,
- n. styrene-ethylene-butadiene-styrene block copolymer,
- o. acrylic rubber,
- p. ethylene vinyl acetate elastomer,
- q. silicone rubber, and
- r. a combination of any of at least two of the foregoing.
20. The article of claim 19 wherein said ethylene-alpha olefin elastomer is selected from ethylene propylene copolymer; ethylene-propylene diene terpolymer; ethylene octene copolymer; ethylene butene copolymer; ethylene octene terpolymer; and ethylene butene terpolymer.
21. The article of claim 17 selected from a torsional vibration damper, a rubber-viscous vibration isolation damper, a vibration isolator, a vibration isolation

mount, a vibration damper, a coupling, a rubber roll, a transmission belt and a hose.

22. The article of claim 17 wherein said rubber-to-metal adhesive adjuvant is selected from:
  - 5 a. a metal salt of an unsaturated carboxylic acid;
  - b. a maleinized polybutadiene resin;
  - c. a phenylene dimaleimide; and
  - d. a combination of at least two of the foregoing.
23. The article of claim 17 wherein said at least one curative is selected from:
  - 10 a. a free-radical producing agent;
  - b. sulfur; and
  - c. a combination thereof.
24. The article of claim 17 wherein said elastomer composition is the reaction product of at least two said curatives, each said curative having an activation  
15 temperature distinct from the other of said curative.